KP-5000 ZE ZEP

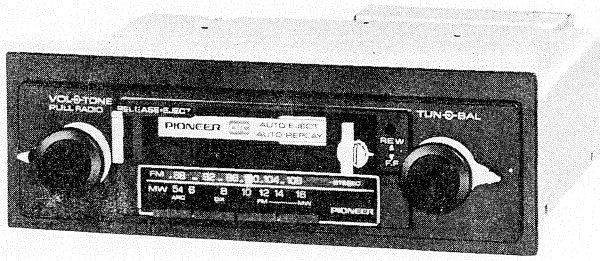
ARC TUNER

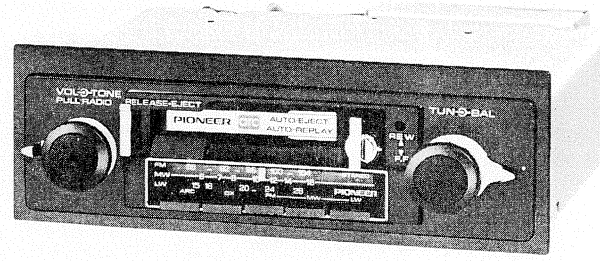
CASSETTE CAR STEREO
WITH MW/FM-STEREO

KP-5300 ZEP

ARC TUNER

CASSETTE CAR STEREO
WITH LW/MW/FM-STEREO





SPECIFICATIONS

GENERAL

Power Source	DC 13.8V (11 ~ 16V allowable)
Grounding System	Negative type
Power Output (rated)	4 watts + 4 watts (RMS)
Load Impedance	4 ohms (2 ~ 8 ohms allowable)
Dimensions (W × H × D)	[Basic unit] 180 × 50 × 150 mm
	[Noise suppressor] 54 × 26 × 82 mm
Nose Size (W × H × D)	105 × 42 × 16 mm
Shaft Interval	130 mm
Weight	[KP-5000 ZE] 2 kg
	[KP-5000 ZEP/KP-5300 ZEP] 2.2 kg

TAPE PLAYER

Tape	Compact cassette tape (C-30 ~ C-90)
Tape Speed	4.75 cm/sec. (1-7/8 ips)
Fast Forward Time	Within 100 sec. for C-60
Rewind Time	Within 100 sec. for C-60
Wow & Flutter	No more than 0.3% (WRMS)
Frequency Response	30 ~ 12,000 Hz (−3 dB)
Crosstalk	More than 40 dB
Signal-to-Noise Ratio	More than 45 dB

FM TUNER

Frequency Range	[KP-5000] 88 ~ 108 MHz
	[KP-5300] 88 ~ 104 MHz
Usable Sensitivity	1.5μV
Signal-to-Noise Ratio	More than 60 dB
Capture Ratio	3 dB
Selectivity	70 dB
Image Rejection	56 dB
IF Rejection	64 dB
Distortion	No more than 1%
Frequency Response	30 ~ 12,000 Hz (−3 dB)
Muting Level	10μV (ARC ON)
Stereo Separation	25 dB

MW TUNER [KP-5000]

Frequency Range	525 ~ 1,620 kHz
Sensitivity	15μV
Selectivity	25 dB (±10 kHz)
Local/Distant Switch Effect	17 dB attenuation
Max. Input Signal (distortion 5%)	130 dB

MW/LW TUNER [KP-5300]

MW Frequency Range	525 ~ 1,620 kHz
MW Sensitivity	15μV
MW Selectivity	25 dB (±10 kHz)
LW Frequency Range	150 ~ 280 kHz
LW Sensitivity	100μV
LW Selectivity	20 dB (±10 kHz)
MW and LW Local/Distant Switch Effect	17 dB attenuation
Max. Input Signal (distortion 5%)	130 dB

PIONEER®

● IC's and Transistors

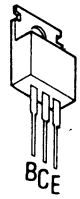
2SC644
2SC930
2SA733
2SC1674
2SC1675
2SC828
2SC829

2SK49
2SK30A

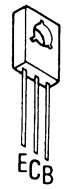
2SC1383

2SC460

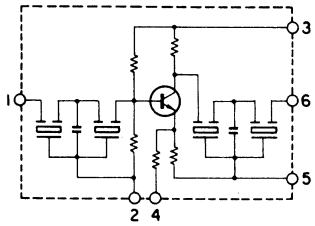
2SC1061



2SA715WT



LVI210



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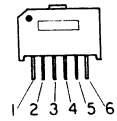
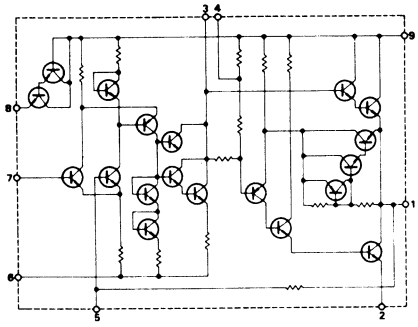
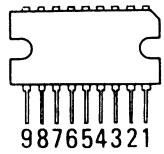


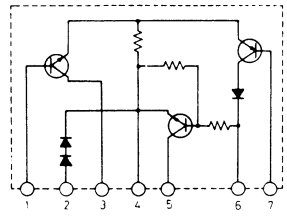
AN214



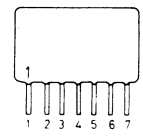
AN214



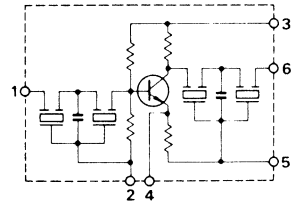
PST160



PST160



H8D1199



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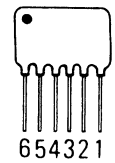
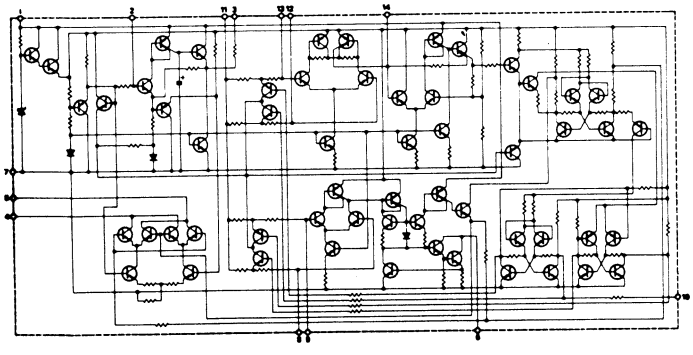


KB4409



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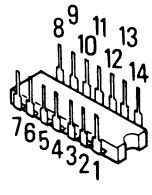
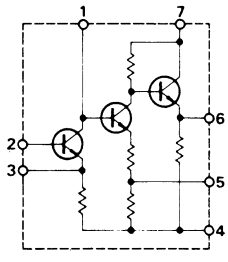
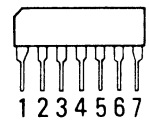


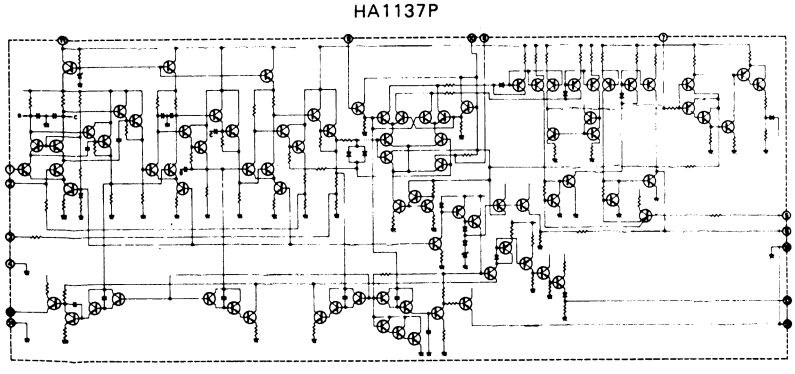
TA7063P
μPC566H3



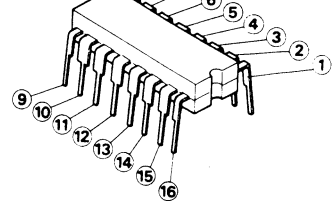
TA7063P
μPC566H3



HA1137P



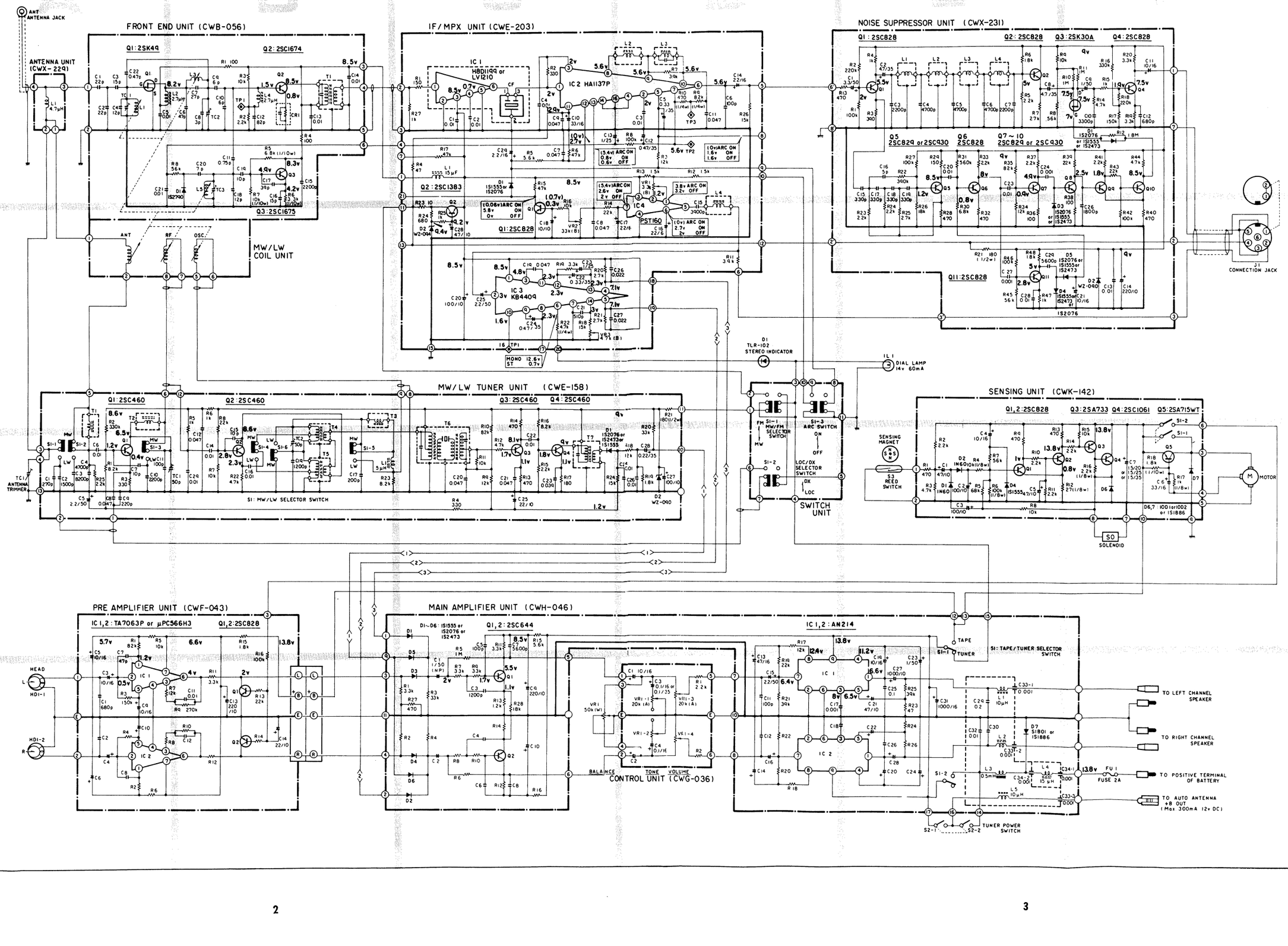
HA1137P



SCHEMATIC CIRCUIT DIAGRAM (KP-5300 ZEP)

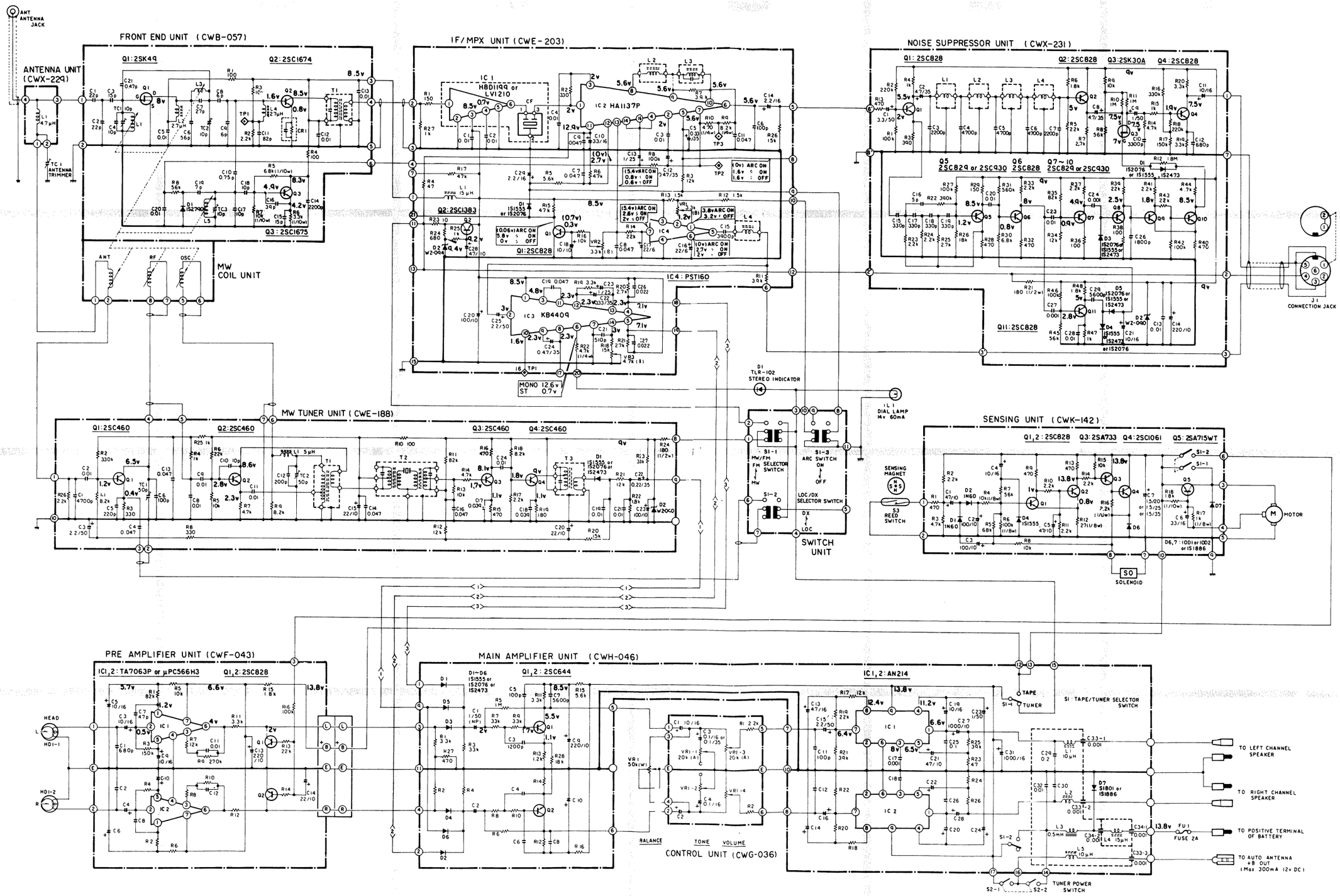
KP-5000
KP-5300

SCHEMATIC CIRCUIT DIAGRAM (KP-5300 ZEP)



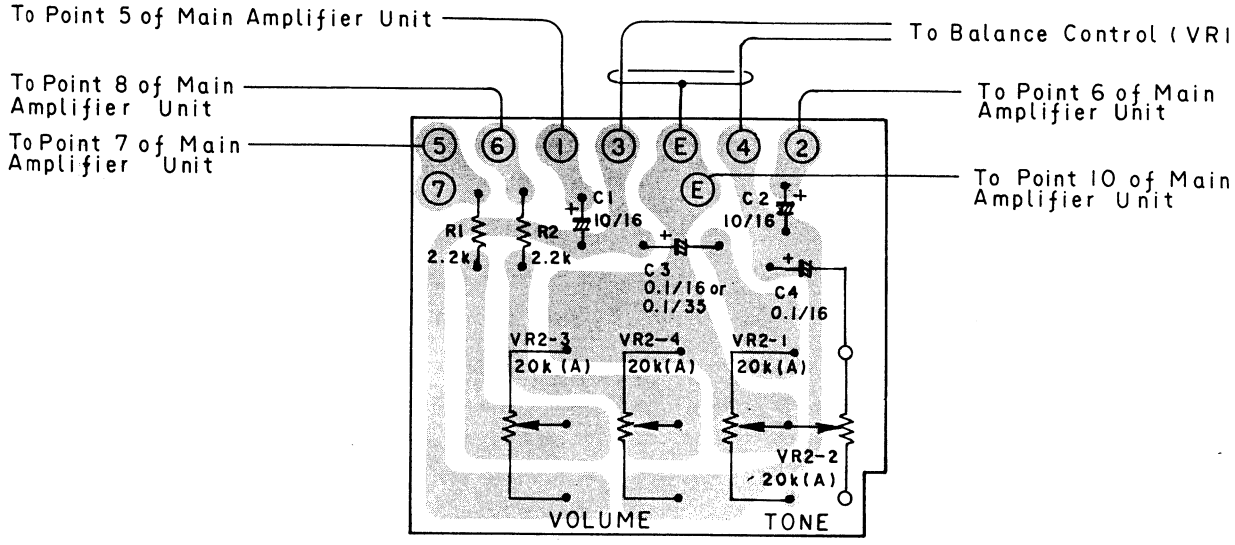
SCHEMATIC CIRCUIT DIAGRAM (KP-5000 ZEP)

KP-5000
KP-5300



CONTROL UNIT (CWG-036)

● Parts Connection

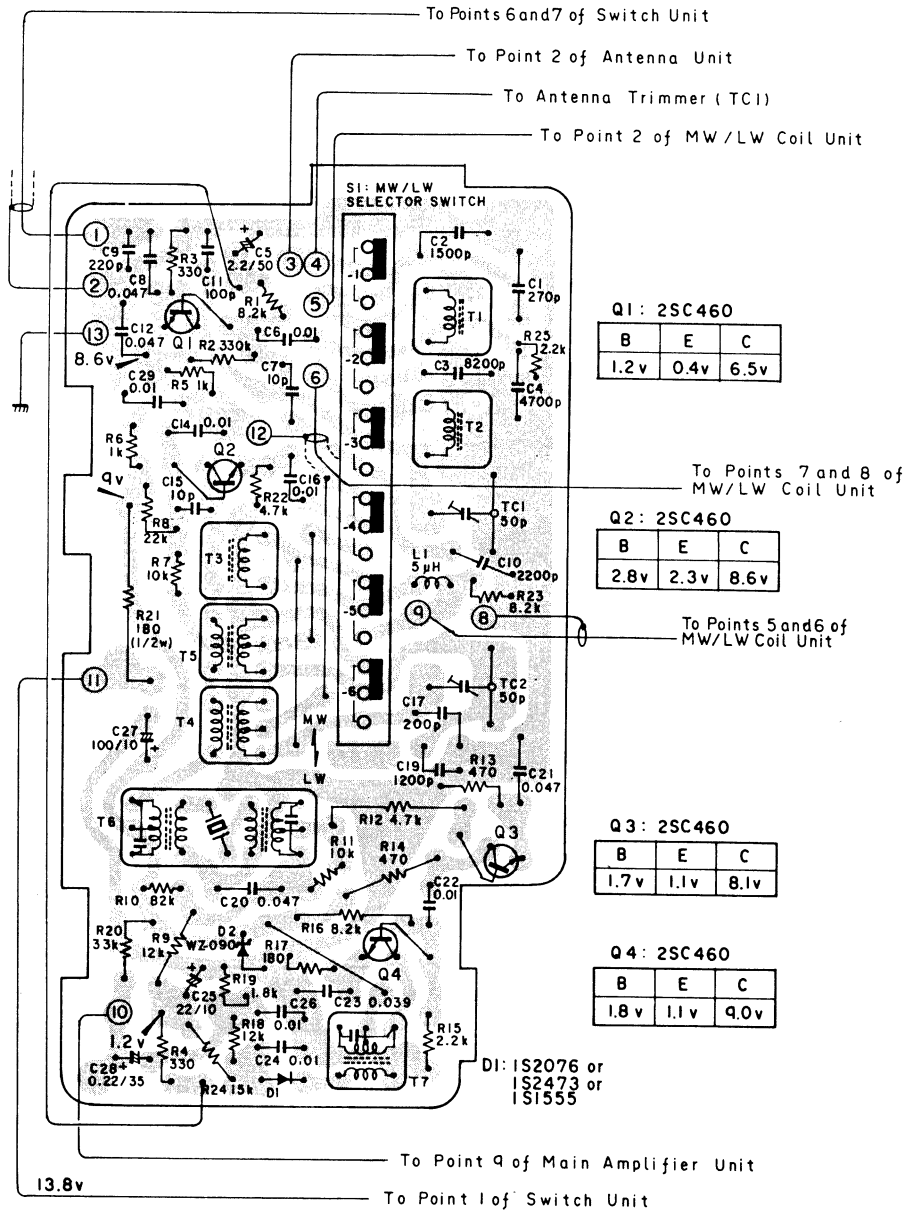


NOTICE: Of the descriptive symbols of the resistor and capacitor, the encircled alphabetic letter denotes the allowable error.

Example: RD1/4VS100 Ⓙ C: ±0.25pF F: ±1pF J: ±5% M: ±20% Z: $^{+80}_{-20}$%
CEA100 Ⓟ 25 D: ±0.5pF G: ±2% K: ±10% X: $^{+40}_{-20}$% P: $^{+100}_{-10}$%

MW/LW TUNER UNIT (CWE-158) (KP-5300)

● Parts Connection


To Points 6 and 7 of Switch Unit
To Point 2 of Antenna Unit
To Antenna Trimmer (TC1)
To Point 2 of MW/LW Coil Unit
S1: MW/LW SELECTOR SWITCH
To Points 7 and 8 of MW/LW Coil Unit
To Points 5 and 6 of MW/LW Coil Unit
8.6v
1.2v
13.8v
MW
LW
D1: 1S2076 or 1S2473 or 1S1555
To Point 9 of Main Amplifier Unit
To Point 1 of Switch Unit

Q1 : 2SC460

B	E	C
1.2 v	0.4v	6.5v

Q2 : 2SC460

B	E	C
2.8v	2.3 v	8.6v

Q3 : 2SC460

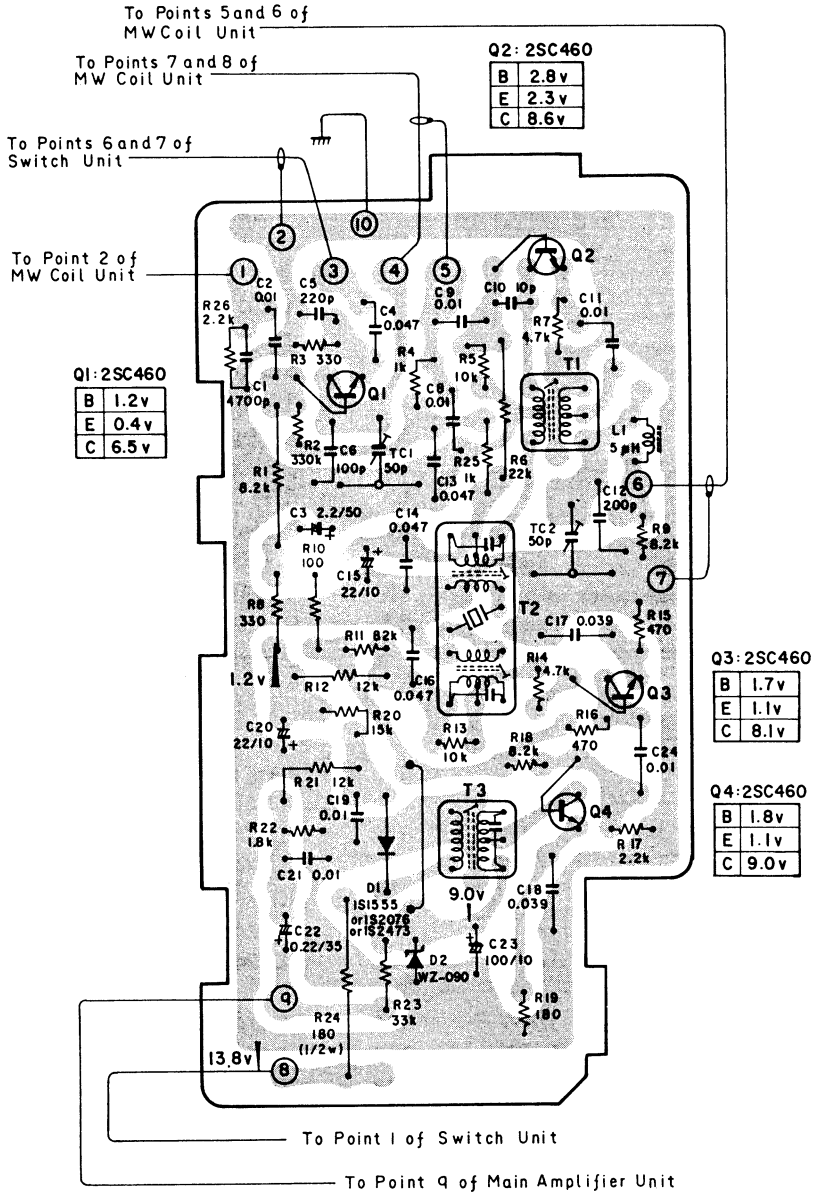
B	E	C
1.7 v	1.1v	8.1v

Q4 : 2SC460

B	E	C
1.8 v	1.1 v	9.0v

MW TUNER UNIT (CWE-188) (KP-5000)

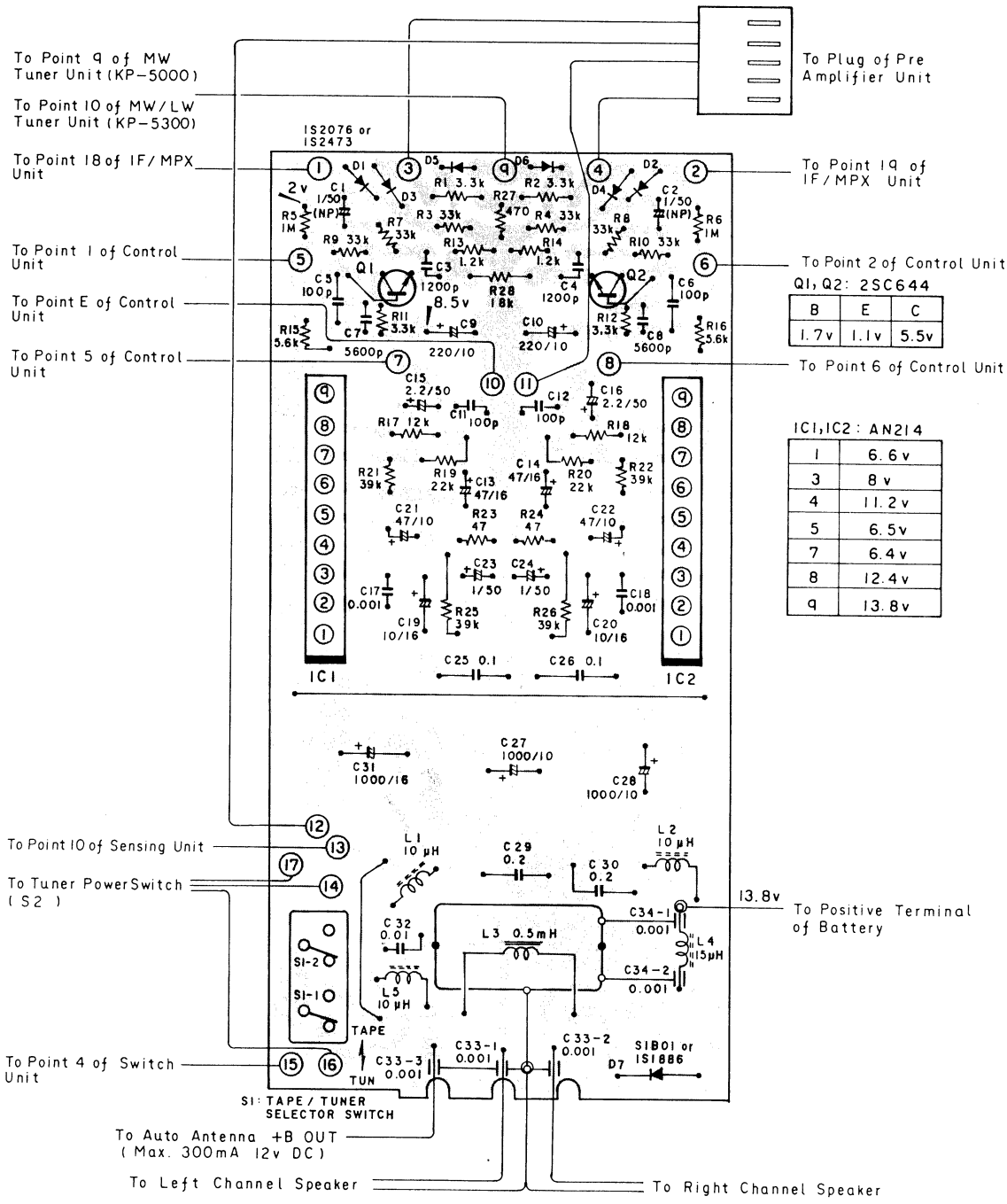
● Parts Connection



MAIN AMPLIFIER UNIT (CWH-046)

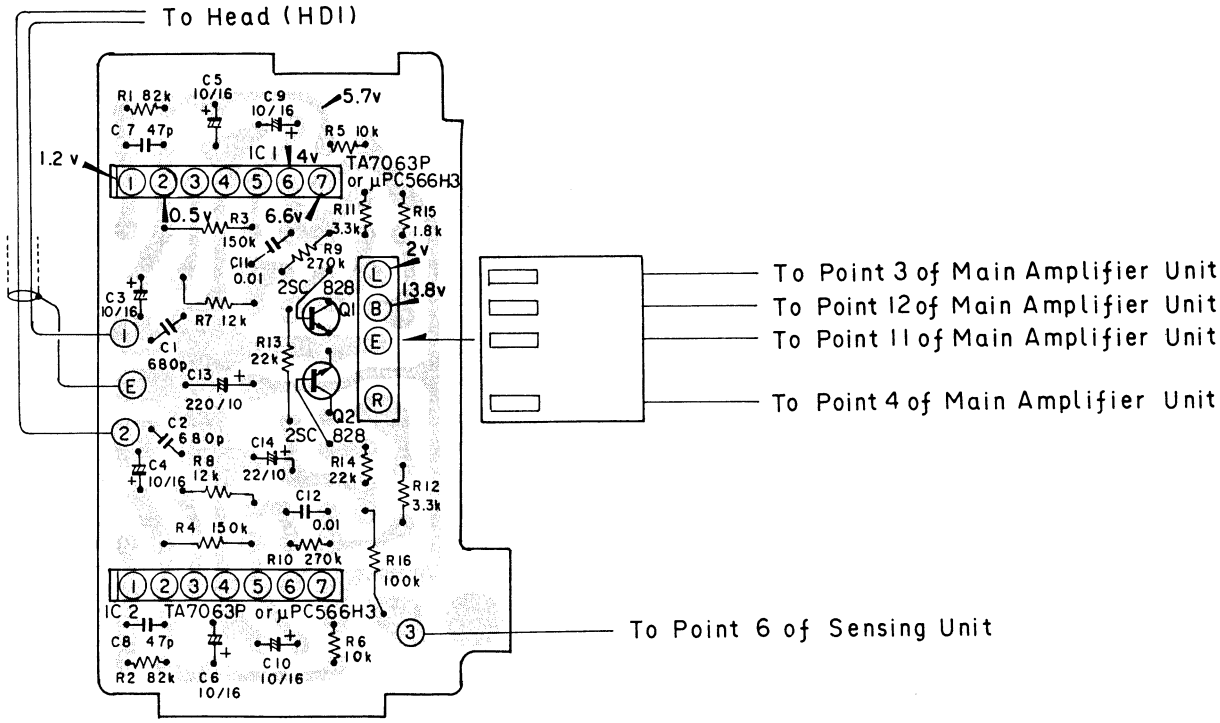
KP-5000
KP-5300

● Parts Connection


To Point 9 of MW Tuner Unit (KP-5000)
To Point 10 of MW/LW Tuner Unit (KP-5300)
To Point 18 of IF/MPX Unit
To Point 1 of Control Unit
To Point E of Control Unit
To Point 5 of Control Unit
To Plug of Pre Amplifier Unit
To Point 19 of IF/MPX Unit
To Point 2 of Control Unit
To Point 6 of Control Unit
IS2076 or IS2473
Q1, Q2: 2SC644
B E C
1.7v 1.1v 5.5v
IC1, IC2: AN214
1 6.6v
3 8v
4 11.2v
5 6.5v
7 6.4v
8 12.4v
9 13.8v
IC1
IC2
To Point 10 of Sensing Unit
To Tuner Power Switch (S2)
To Point 4 of Switch Unit
13.8v
To Positive Terminal of Battery
S1: TAPE/TUNER SELECTOR SWITCH
To Auto Antenna +B OUT (Max. 300mA 12v DC)
To Left Channel Speaker
To Right Channel Speaker

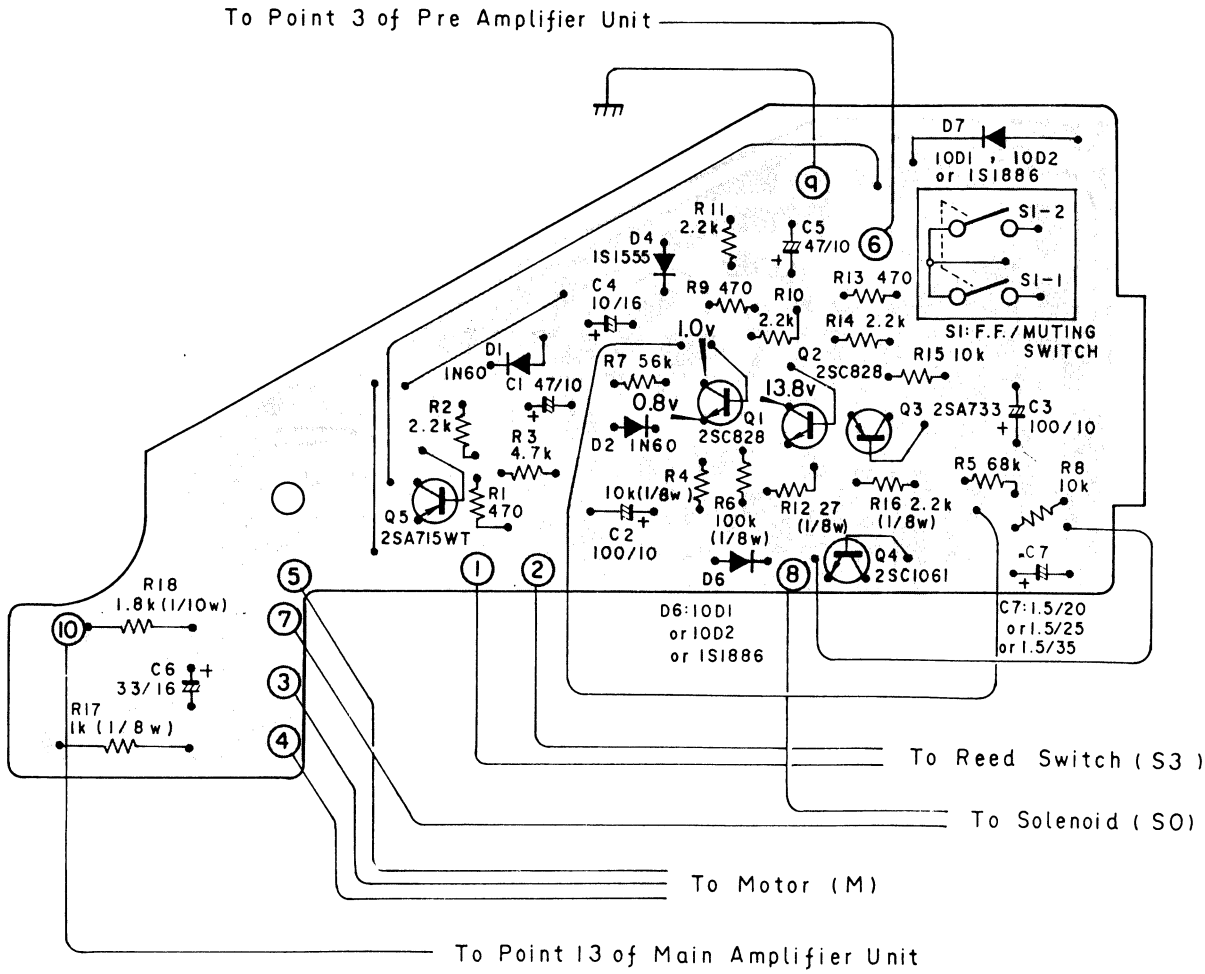
PRE AMPLIFIER UNIT (CWF-043)

● **Parts Connection**



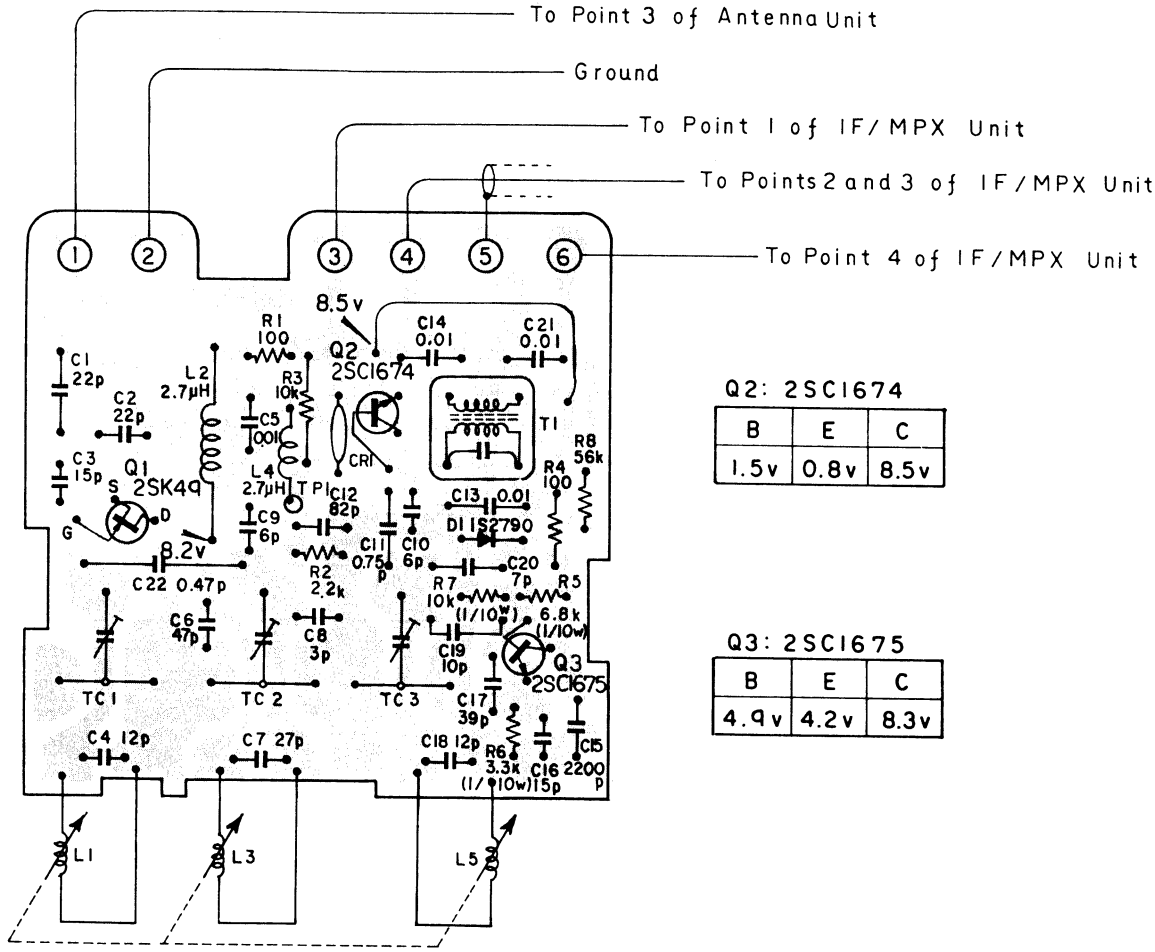
SENSING UNIT (CWK-142)

● **Parts Connection**



FRONT END UNIT (CWB-056) (KP-5300)

● Parts Connection



Q2: 2SC1674

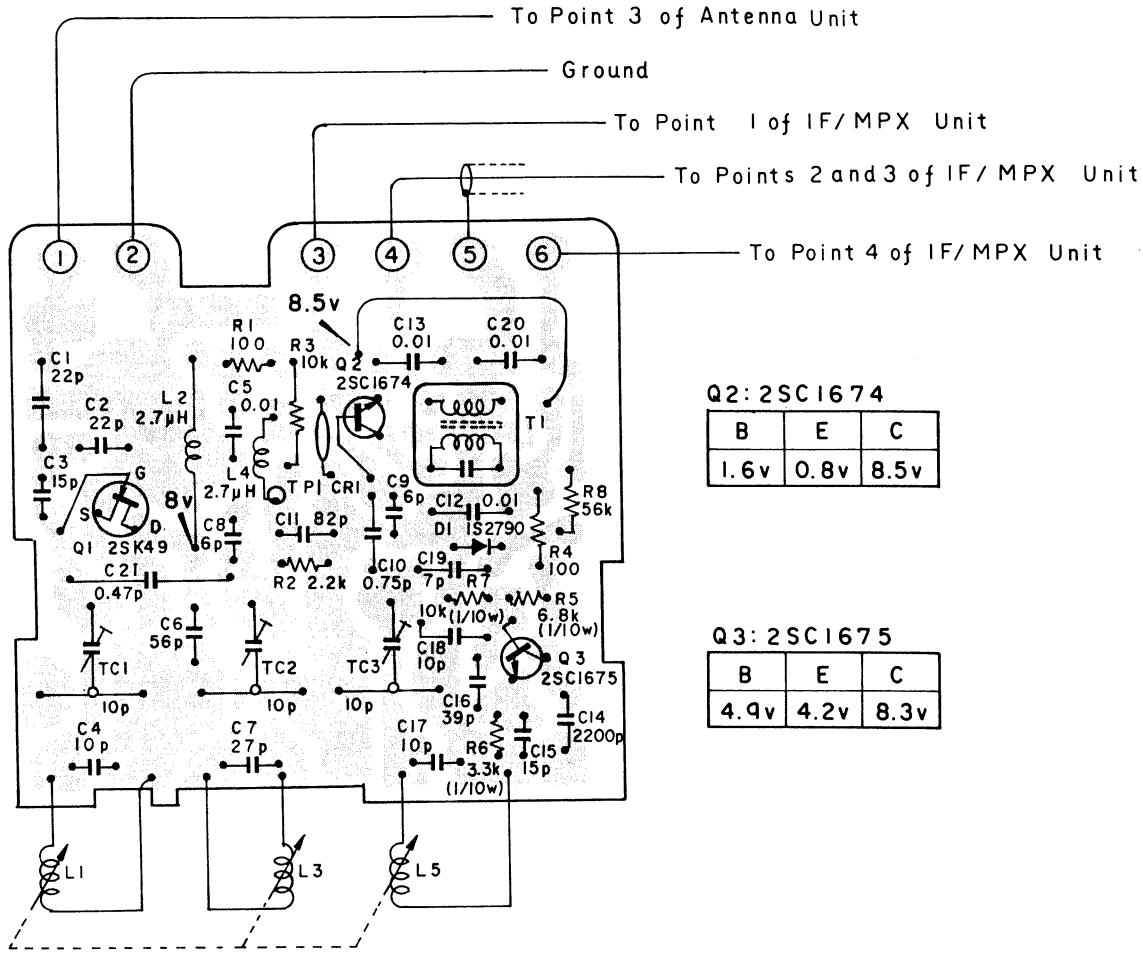
B	E	C
1.5v	0.8v	8.5v

Q3: 2SC1675

B	E	C
4.9v	4.2v	8.3v

FRONT END UNIT (CWB-057) (KP-5000)

● **Parts Connection**



Q2: 2SC1674

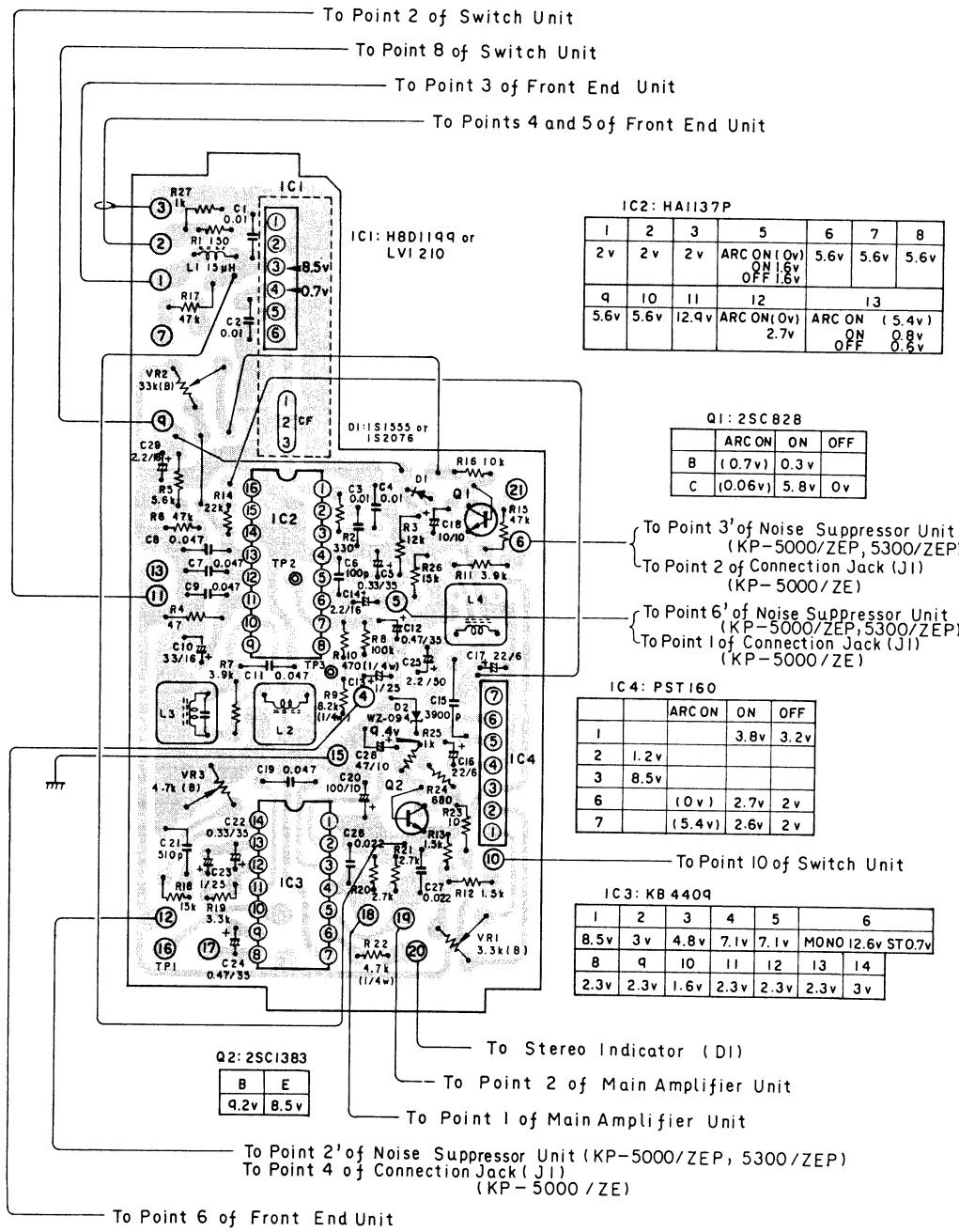
B	E	C
1.6v	0.8v	8.5v

Q3: 2SC1675

B	E	C
4.9v	4.2v	8.3v

IF/MPX UNIT (CWE-203)

● Parts Connection



IC2: HA1137P

1	2	3	5	6	7	8
2v	2v	2v	ARC ON (0v) ON 1.6v OFF 1.6v	5.6v	5.6v	5.6v

9	10	11	12	13
5.6v	5.6v	12.9v	ARC ON (0v) 2.7v	ARC ON (5.4v) ON 0.8v OFF 0.5v

Q1: 2SC828

	ARC ON	ON	OFF
B	(0.7v)	0.3v	
C	(0.06v)	5.8v	0v

IC4: PST160

		ARC ON	ON	OFF
1			3.8v	3.2v
2	1.2v			
3	8.5v			
6		(0v)	2.7v	2v
7		(5.4v)	2.6v	2v

IC3: KB4409

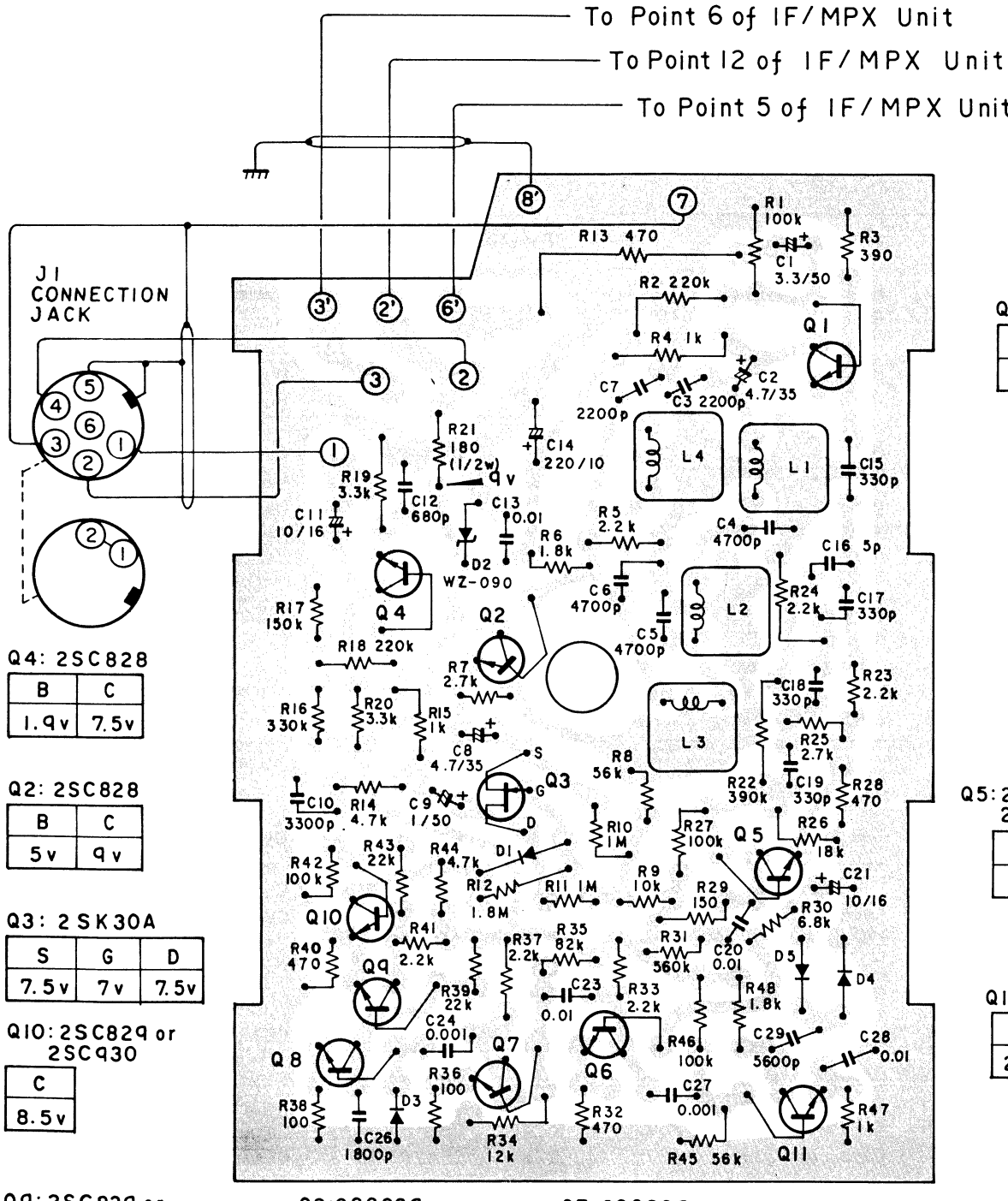
1	2	3	4	5	6		
8.5v	3v	4.8v	7.1v	7.1v	MONO 12.6v		STO 7v
8	9	10	11	12	13	14	
2.3v	2.3v	1.6v	2.3v	2.3v	2.3v	3v	

Q2: 2SC1383

B	E
9.2v	8.5v

NOISE SUPPRESSOR UNIT (CWX-231)

● **Parts Connection**



Q1: 2SC828

B	C
2 v	5.5v

Q4: 2SC828

B	C
1.9v	7.5v

Q2: 2SC828

B	C
5v	9v

Q3: 2SK30A

S	G	D
7.5v	7v	7.5v

Q10: 2SC829 or 2SC930

C
8.5v

Q5: 2SC829 or 2SC930

B	C
1.2v	8.5v

Q11: 2SC828

B	C
2.8v	5v

Q9: 2SC829 or 2SC930

B	C
2.5v	1.8v

Q8: 2SC829 or 2SC930

C
2.5v

Q7: 2SC829 or 2SC930

B	C
0.9v	4.9v

Q6: 2SC828

B	C
0.8v	8v

CASSETTE MECHANISM EXPLODED VIEW